APPARATUS AND METHOD FOR PROVIDING AN INTERFACE IN A DEVICE WITH TOUCH SCREEN

CROSS-REFERENCE TO RELATED APPLICATION(S) AND CLAIM OF PRIORITY

[0001] The present application is related to and claims priority under 35 U.S.C. §119(a) to a Korean Patent Application filed in the Korean Intellectual Property Office on Jun. 9, 2011 and assigned Serial No. 10-2011-0055691, the contents of which are herein incorporated by reference.

TECHNICAL FIELD OF THE INVENTION

[0002] The present invention generally relates to devices with touch screens, and more particularly, to an interface for improving the accessibility of the disabled in a device with a touch screen.

BACKGROUND OF THE INVENTION

[0003] Along with the growth of a multimedia information service has been a demand for communication terminals capable of supporting multimedia information services for the disabled. Particularly, communication terminals for the visually challenged user are often able to apply a user interface for efficiently supporting an auditory sense, a tactual sense and the like, that supplements its user's restricted ability.

[0004] Presently, conventional communication terminals have been limited to the non-disabled. For example, the interface of most conventional communication terminals has been accomplished through a touch screen, so there is a problem that a visually challenged user experiences difficulty in using the terminal. Also, the disabled user may desire to use the terminal through interacting with the terminal, but a visually challenged user may have difficulty due to the deficiency of the interface between devices.

SUMMARY OF THE INVENTION

[0005] To address the above-discussed deficiencies of the prior art, it is a primary object to provide at least the advantages below. Accordingly, one aspect of the present invention is to provide an interface for improving the accessibility of the disabled in a device with a touch screen.

[0006] The above aspects are achieved by providing an apparatus and method for providing an interface in a device with a touch screen.

[0007] According to one aspect of the present invention, a method for providing an interface in a device with a touch screen includes displaying on a screen, a directory including a plurality of names and phone numbers corresponding to the names, in a case where a touch event takes place, focusing a region within a screen in which the touch event occurs, and converting a name and phone number within the focused region into Braille data and transmitting the Braille data to a Braille display through an interface.

[0008] According to another aspect of the present invention, a method for providing an interface in a device with a touch screen includes displaying on a screen, a text message list composed of a plurality of phone numbers and at least a portion of a text message content corresponding to the phone numbers, such that, when a touch event occurs, focusing a region in the touch screen where the touch event occurs, and converting a phone number and the text message content in the focusing region into Braille data and transmitting the Braille data to a Braille display through the interface.

[0009] According to another aspect of the present invention, a method for providing an interface in a device with a touch screen includes, when a call request signal is received, extracting sender information from the received call request signal, and converting the extracted sender information into Braille data and transmitting the Braille data to a Braille display through the interface.

[0010] According to another aspect of the present invention, a method for providing an interface in a device with a touch screen includes displaying on a screen, an application list including a plurality of application names and icons such that, when a touch event occurs, focusing a region within the screen where the touch event occurs, determining if the focused region is located in a first region of the screen, when the focusing region is located in the first region of the touch screen, zooming in and displaying an application name and icon within the focused region in a second region of the screen, and in a case where the focused region is located in the second region of the screen, zooming in and displaying the application name and icon within the focused region in the first region of the screen.

[0011] According to still another aspect of the present invention, a method for providing an interface in a device with a touch screen includes dividing a screen region into an (n×m) array of regions, mapping an application name to each of the divided regions, setting one region as a basic position such that when a touch event occurs, recognizing a position of occurrence of the touch event as a basic position on the (n×m) array of regions, when a position is changed in a state where the touch event is maintained, changing the touch event position according to the position change based on the (n×m) array of regions, and when a drop event occurs, executing an application of an application name mapped to a position of occurrence of the drop event.

[0012] Before undertaking the DETAILED DESCRIPTION OF THE INVENTION below, it may be advantageous to set forth definitions of certain words and phrases used throughout this patent document: the terms "include" and "comprise," as well as derivatives thereof, mean inclusion without limitation; the term "or," is inclusive, meaning and/or; the phrases "associated with" and "associated therewith," as well as derivatives thereof, may mean to include, be included within, interconnect with, contain, be contained within, connect to or with, couple to or with, be communicable with, cooperate with, interleave, juxtapose, be proximate to, be bound to or with, have, have a property of, or the like; and the term "controller" means any device, system or part thereof that controls at least one operation, such a device may be implemented in hardware, firmware or software, or some combination of at least two of the same. It should be noted that the functionality associated with any particular controller may be centralized or distributed, whether locally or remotely. Definitions for certain words and phrases are provided throughout this patent document, those of ordinary skill in the art should understand that in many, if not most instances, such definitions apply to prior, as well as future uses of such defined words and phrases.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] For a more complete understanding of the present disclosure and its advantages, reference is now made to the